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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS:

Alsobrook et al.

SERIAL NUMBER:

09/974,591

EXAMINER:

Not Yet Assigned

ENLING DATE:

October 9, 2001

ART UNIT:

Not Yet Assigned

For:

Novel Single Nucleotide Polymorphisms for Olfactory Receptor-Like

Polypeptides and Nucleic Acids Encoding the Same

- The The

Assistant Commissioner for Patents Washington, D.C. 20231



TRANSMITTAL LETTER

Transmitted herewith for filing in the present application are the following documents:

- 1. Information Disclosure Statement (2 pages), in duplicate;
- 2. Modified Form 1449/PTO (3 pages), in duplicate;
- 3. Copies of cited references B1, and C1-C37; and
- 4. Return Postcard.

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 542-6000, Boston, Massachusetts.

The Commissioner is authorized to charge any additional fees that may be due, or to credit any overpayment, to the undersigned's account, Deposit Account No. 50-0311 Ref. No. 15966-654 CIP (Cura-154 CIP). A duplicate copy of this transmittal letter is enclosed herewith.

Respectfully submitted,

Ivor R. Elrifi, Reg. No. 39/529

Christina V. Karnakis, Reg. No. 45,899

Attorneys for Applicants

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Dated: November 13, 2001

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Novel Single Nucleotide Polymorphisms for Olfactory Receptor-like Polypeptides

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BOX

Assistant SADE Assioner for Patents

Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants hereby make of record the documents listed on the attached modified Form PTO-1449, as well as copies of the listed documents.

This Information Disclosure Statement is being been filed before the mailing date of a first Office Action on the merits in the above-identified case. Accordingly, no fee or certification is believed required.

It is respectfully requested that the Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims, and signs the enclosed form PTO-1449 to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application.

By submitting this Information Disclosure Statement, the Applicants make no representation that: (1) a search has been performed, of the extent of any search performed, or that more relevant information does not exist; (2) the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b); and (3) the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

APPLICANTS:

Alsobrook et al.

U.S.S.N.:

09/974,591

Notwithstanding any statements by the Applicants, the Examiner is urged to form his/her own conclusion regarding the relevance of the cited information. An early and favorable action is hereby requested.

Please charge any additional fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 15966-654 CIP (Cura-154 CIP).

Respectfully submitted,

Ivor R. Elrifi, Reg. No. 39,529

Christina V. Karnakis, Reg. No. 45,899

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Modified Form 1449/PTO	Application Number	09/974,591	
	Filing Date	10/9/01	
INFORMATION DISCLOSURE	First Named Inventor	Alsobrook	
STATEMENT BY APPLICANT	Group Art Unit	Not Yet Assigned	
	Examiner Name	Not yet assigned	
(use as many sheets as necessary)	Attorney Docket Number	15966-654 CIP (Cura-154 CIP)	

U.S. PATENT DOCUMENTS							
Exam Initials	Cite No.	U.S. Patent Document No.	Issue Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate
	A1						

FOREIGN PATENT DOCUMENTS						
Exam Initials	Cite No.	Foreign Patent Document Office Number		Name of Patentee(s) or Applicant(s)	Date of Publication	Translation Yes No
	B1	EP	0 867 508 A3	Smithkline Beecham Corporation	09/05/01	

		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
	C1	Ben-Arie, N., D. Lancet, et al. (1994). "Olfactory receptor gene cluster on human chromosome 17: possible duplication of an ancestral receptor repertoire." <u>Hum Mol Genet</u> 3(2): 229-35.
	C2	Bird, C. 2000 Direct Submission. GenBank Accession Number: AL049734
	C3	Blache, et al., 1998 "Cloning and tissue distribution of a new rat olfactory receptor-like." <u>Biochem.</u> <u>Biophys. Res. Commun</u> . 242 (3), 669-672. GenBank Accession Number: JC5836
	C4	Blache, P., L. Gros, et al. (1998). "Cloning and tissue distribution of a new rat olfactory receptor-like (OL2)." Biochem Biophys Res Commun 242(3): 669-72.
	C5	Calof, A. L., J. D. Holcomb, et al. (1996). "Factors affecting neuronal birth and death in the mammalian olfactory epithelium." Ciba Found Symp 196: 188-205.
	C6	Corby, 2000 Direct Submission. GenBank Accession Number: AL135841
	C7	Corby, 2000 Direct Submission. GenBank Accession Number: CAB96728
	C8	Corby, N. 2000 "Human DNA sequence from clone RP11-327L3 on chromosome 9p13.1-13.3. Contains a putative novel gene, a PGAM1 (phosphoglycerate mutase 1 (brain)) pseudogene, the gene for a novel 7 transmembrane receptor (rhodopsin family) (olfactory receptor like) protein, an NSEP1 (nuclease sensitive element binding protein 1) (YB1) pseudogene, ESTs, STSs and GSSs. GenBank Accession Number: NP_063950
	C9	Dryer, L. and A. Berghard (1999). "Odorant receptors: a plethora of G-protein-coupled receptors." Trends Pharmacol Sci 20(10): 413-7.
	C10	Hatt, H., G. Gisselmann, et al. (1999). "Cloning, functional expression and characterization of a human olfactory receptor." Cell Mol Biol (Noisy-le-grand) 45(3): 285-91.
	C11	Hoppe, et al., 2000 "Sequence analyses of the olfactory receptor gene cluster mOR37 on mouse chromosome 4." Genomics 66 (3), 284-295. GenBank Accession Number: AJ251155
	C12	Hoppe, et al., 2000 "Sequence analyses of the olfactory receptor gene cluster mOR37 on mouse chromosome 4." Genomics 66 (3), 284-295. GenBank Accession Number: CAB96147
	C13	Lane, et al., 2000 "Genomic Analysis of Orthologous Mouse and Human Olfactory Receptor Loci Indicates Cluster Stability Yet Minimal Conservation Beyond the Coding Sequence." Direct Submission. GenBank Accession Number: AAG45201

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 -		OTHER PRIOR ART NON PATENTILITERATURE DOCUMENTS
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
muais	C14	Lane, et al., 2000 "Genomic Analysis of Orthologous Mouse and Human Olfactory Receptor Loci Indicates Cluster Stability Yet Minimal Conservation Beyond the Coding Sequence." Direct Submission. GenBank Accession Number: AAG45204
	C15	Lane,et al., 2000 "Genomic Analysis of Orthologous Mouse and Human Olfactory Receptor Loci Indicates Cluster Stability Yet Minimal Conservation Beyond the Coding Sequence." Direct Submission. GenBank Accession Number: AF321237
1	C16	Lane,et al., 2000 "Genomic Analysis of Orthologous Mouse and Human Olfactory Receptor Loci Indicates Cluster Stability Yet Minimal Conservation Beyond the Coding Sequence." Direct Submission. GenBank Accession Number: AAG45196
	C17	Malnic, et al., 1999 "Combinatorial receptor codes for odors." Cell 96 (5), 713-723. GenBank Accession Number: AAD27592
	C18	Malnic, et al., 1999 "Combinatorial receptor codes for odors." Cell 96 (5), 713-723. GenBank Accession Number: NP_064684
	C19	Marchis, S. D., C. Modena, et al. (2000). "Carnosine-related dipeptides in neurons and glia." <u>Biochemistry (Mosc)</u> 65(7): 824-33.
	C20	Menini, A. (1999). "Calcium signalling and regulation in olfactory neurons." <u>Curr Opin Neurobiol</u> 9(4): 419-26.
	C21	Nakamura, T. (2000). "Cellular and molecular constituents of olfactory sensation in vertebrates." Comp Biochem Physiol A Mol Integr Physiol 126(1): 17-32.
	C22	Pilpel, Y., A. Sosinsky, et al. (1998). "Molecular biology of olfactory receptors." Essays Biochem 33: 93-104.
	C23	Raming, 1993 "Cloning and expression of odorant receptors." <u>Nature</u> 361 (6410), 353-356. GenBank Accession Number: \$29711
	C24	Rouquier, 2000 "The olfactory receptor gene repertoire in primates and mouse: evidence for reduction of the functional fraction in primates." Proc. Natl. Acad. Sci. U.S.A . 97 (6), 2870-2874. GenBank Accession Number: AAF40368
	C25	Rouquier, et al., 1998 "Distribution of olfactory receptor genes in the human genome." Nature Genet. 18 (3), 243-250. GenBank Accession Number: AAC39611
	C26	Schurmans, S., F. Muscatelli, et al. (1993). "The OLFR1 gene encoding the HGMP07E putative olfactory receptor maps to the 17p13>p12 region of the human genome and reveals an Mspl restriction fragment length polymorphism." Cytogenet Cell Genet 63(3): 200-4.
	C27	Smith ,S. 1999 Direct Submission. GenBank Accession Number: CAB42853
	C28	Strotmann, et al., 1992 "Expression of odorant receptors in spatially restricted subsets of chemosensory neurons." Neuroreport 3 (12), 1053-1056. GenBank Accession Number: AAB25299
	C29	Strotmann, et al., 1999 "Small subfamily of olfactory receptor genes: structural features, expression pattern and genomic organization." <u>Gene</u> 236 (2), 281-291. GenBank Accession Number: NP_062359
	C30	Strotmann, et al., 1999 "Small subfamily of olfactory receptor genes: structural features, expression pattern and genomic organization." Gene 236 (2), 281-291. GenBank Accession Number: CAB55597
	C31	Strotmann, et al., 1999 "Small subfamily of olfactory receptor genes: structural features, expression pattern and genomic organization." Gene 236 (2), 281-291. GenBank Accession Number: AJ133424
	C32	Walensky, et al., 1998 "Two novel odorant receptor families expressed in spermatids undergo 5'-splicing." J. Biol. Chem. 273 (16), 9378-9387. GenBank Accession Number: AAC17222
	C33	Whitaker, H. 2000 "Human DNA sequence from clone 994E9 on chromosome 6p21.31-22.2 Contains an RPS17 (40S Ribososmal Protein S17) pseudogene, the gene for MAS-related G protein-coupled receptor MRG, a pseudogene similar to MAS proto-oncogene, a diubiquitin pseudogene, four novel 7 transmembrane receptor (rhodopsin family) (olfactory receptor like) protein genes and one pseudogene. Contains ESTs and GSSs. GenBank Accession Number: NP_039225
	C34	Corby, N. (1999). Direct Submission, EMBL Database Accession No.: AL133410.
	C35	Strotmann, J. et al. (1999). Gene 236: 281-291.
	C36	Strotmann, J. et al. (1999). Gene 236: 181-191. EMBL Database Accession No.: Q9QZ18.

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		OTHER PRIOR ARE NON PATENT LE RATURE DOCUMENTS
Exam Initials	Cite No.	Name of Author, Title (when appropriated Publication, Volume, Page(s), Date, Etc.
	C37	Partial International Search Report, issued September 18, 2001.

* a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. ______, filed ______, and relied upon for an earlier filing date under 35 U.S.C. §120 (continuation, continuation-in-part, and divisional applications).

Examiner Signature	Date Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.

Include copy of this form with next communication to applicant.

TRA 1592738v1